

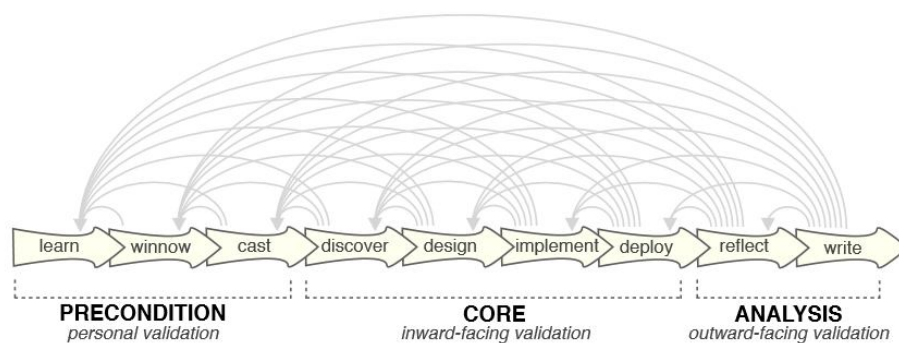
Weekly report

1 Done

1.1 Reading:

1.1.1 Design Study Methodology: Reflections from the Trenches and the Stacks (Tamara):

Design studies	problem-driven	work with real users to solve their real-world problems
	technique-driven	develop new and better techniques without necessarily establishing a strong connection to a particular documented user need



Nine-stage design study methodology framework.

During the introduction of methodology, they give 32 identified pitfalls occurring throughout the framework, from my perspective, which are helpful for our collaborators as well as us.

1.1.2 Comparing 3D Vector Field Visualization Methods: A User Study (Laidlaw)

Outline: Explain why they choose the scenarios and these methods. → Put forward some assumptions. → Describe the experiment. (They limited their tasks to binary or multiple choices.) → Analyze and discuss the results.

1.1.3 Evaluation of Parallel Coordinates: Overview, Categorization and Guidelines for Future Research

(Johansson)

This is a survey investigating numerous user-centered evaluations of parallel

coordinates. The authors split the evaluation of parallel coordinates into three sub problems including the evaluation of axis layouts, reduction methods, and practical applicability. Besides, they compare parallel coordinates with other data analysis techniques.

1.1.4 Evaluation of Traditional, Orthogonal, and Radial Tree

Diagrams by an Eye Tracking Study (Weiskopf)

- Their targets are two layouts with four directions and another layout.
- They fix the parameters of experimental dataset to given bounds without explanation.
- They perform only one task in hierarchy exploration but they employ eye tracking to record task solving strategy. Accuracy, completion times and exploration behavior such as jumping frequency are taken into account.

1.1.5 How to Display Group Information on Node-Link

Diagrams: An Evaluation (Taggart)

- They choose a short and challenging duration deliberately to time participants so that they can ensure that participants solve tasks by perception and estimation rather than deliberation.
- All their results are quantifiable. Actually, most evaluations are based on quantified results illustrated by plot charts, bar charts and so on.

1.2 Privacy

1.2.1 Introduced our idea to new participants and drafted schedule.

1.2.2 Determined the experimental program.

2 To Do

2.1 Do as the schedule.

2.2 Learn about differential privacy.